

## **Minutes from CAPS Committee Meeting on October 8, 2009**

The state CAPS Committee met on October 8, 2009 at 1:30 am at the Dean's Conference room, 137 Waters Hall at Kansas State University. In attendance were Erin Stiers-USDA-APHIS, Wendy Beltz-USDA-APHIS, Craig Webb-USDA-APHIS, Doug Jardine-KSU Plant Pathology, Jon Appel-KDA, Glenn Salsbury-KDA, Sharon Dobesh-KSU Entomology, Katie Howard-KDA, Jeff Vogel-KDA, Bill Scott-KDA, Erick DeWolf-KSU Plant Pathology, Tim Todd-KSU Nematologist, Larry Biles-KFS and Laurinda Ramonda-CAPS Coordinator.

Introductions were made after discussing CAPS surveys.

We have switched from a fiscal year to a calendar year for surveys.

For fiscal year July 1, 2008-June 30, 2009 (surveys have been completed and data entered into NAPIS):

- Infrastructure (staying on fiscal year).
- Karnal Bunt
- 2<sup>nd</sup> year Cereal Crop Nematode Survey with 729 samples in 25 Counties. Counties: Barber, Barton, Clark, Comanche, Edwards, Ellis, Ellsworth, Ford, Harper, Hodgeman, Kingman, Kiowa, Lincoln, Osborne, Pawnee, Phillips, Pratt, Reno, Rice, Rooks, Rush, Russell, Smith, Stafford, and Trego.

For calendar year January 1-December 31, 2009: (surveys completed, results pending for Small Grain)

- Red Imported Fire Ants surveyed for in the City of El Dorado in Butler County. This surveyed was done in 305 sites in July, August and September.
- Small Grain & Soybean Commodity survey began in June and with traps removed in September.

Targets and trapping:

- Silver Y Moth (*Autographa gamma*), June-September in wheat & soybean fields. Delta trap with pheromone (Z)-7-dodecenyl acetate and (Z)-7-dodecenol lure. Checked traps monthly.
- Egyptian Cotton Leafworm (*Spodoptera littoralis*), June-September in wheat & soybean fields. Delta trap with synthetic pheromone (Z,E)-(9,11)-tetradecadienyl acetate with a 2 mg pheromone blend lure. Checked traps monthly.
- Old Bollworm (*Helicoverpa armigera*), June-September in wheat & soybean fields. Shared delta trap with Egyptian Cotton Leafworm with (Z)-11-hexadecenal and (Z)-9-hexadecenal lure. Checked traps monthly.

- Maritime Gardensnail (*Cernuella virgata*), June-September in wheat & soybean fields. Visually inspected for on plants at edge of field when traps were checked monthly.
- Yellow Witchweed (*Alectra vogelii*), June-September in soybean fields. Visually inspected for when traps were checked monthly.
- Soybean Aphid (*Aphis glycines*), June-September in soybean fields. Visually inspected for when traps were checked monthly.
- Cereal Leaf Beetle (*Oulema melanopus*), June-June in wheat fields. Visually inspected for when traps were checked monthly.
- Insidious Flower Bug & Minute Pirate Bug (*Orius* spp.), Damsel Bug (*Nabis* spp.), Lacewings, and Lady Beetles, June-September in wheat and soybean fields. Sweep nets were done in fields when traps were checked

Both wheat and soybean fields were checked. One hundred fifty-nine fields were checked with 27 of them being soybeans and 132 being wheat.

- Canada Thistle Biological Control using *Ceutorhynchus litura* at Keith Sebelius Lake.
- Spotted Knapweed Biological Control using the lesser knapweed flower weevil (*Larinus minutus*) and the knapweed root weevil (*Cyphocleonus achates*).
- Emerald Ash Borer- 100 traps KDA, 100 traps USDA in June-September.

For fiscal year July 1, 2009-June 30, 2010: (in progress)

- Infrastructure

For calendar year January 1-December 31, 2010: (submitted to USDA)

- 3rd year Cereal Crop Nematode survey
- Karnal Bunt
- Canada Thistle Bio Control
- Spotted Knapweed Bio Control
- Emerald Ash Borer
- Fire Ant (several different counties will be surveyed)

State Specialist Updates:

Jeff Vogel-State Weed Specialist: Spotted knapweed bio control project had 2 organisms released, 1000 root weevils received from Montana and 500 flower weevil received from Colorado in Nemaha county.

Good conditions occurred for the releases. Fifteen counties were surveyed for spotted knapweed (Atchison, Bourbon, Brown, Cherokee, Crawford, Doniphan, Johnson, Leavenworth, Linn, Marshall, Miami, Nemaha, Republic, Washington and Wyandotte) and Nemaha was the only county it was found in. There are scattered plants 1-2 miles from release site.

Supplemental releases are planned for next year with more surveys in counties from Jewell along the Nebraska border to Colorado. There will be 300-400 points surveyed.

Canada thistle bio control survey was done at Keith Sebelius lake in Norton county. The Canada thistle is located under a cottonwood canopy so it is hard to get to and the area does not want aerial spraying so this was a good location to use bio control. The release occurred in August and funding for supplemental releases have been submitted for next year.

Hydrilla was found in a pond in an Olathe park last year. The city is cooperating with KDA and we have used some emergency pest fund money to buy granular Fluorodone. The first spraying occurred at the beginning of June. Survey has been conducted downstream and nothing has been found. The hydrilla has probably been in the pond for 2-4 years. If only the herbicide is used it will take from 5-8 years to eradicate it.

Glenn Salsbury-state Entomologist: Trees brought to Kansas from a quarantine area in Tennessee were planted in El Dorado. These trees were planted around the city and water treatment plant. We baited 300+ traps with SPAM and trapped once a month for 3 months. The trapping occurred in July, August and September. No fire ants were found.

In August an individual said he had been stung by ants in Coffeyville and I investigated the occurrence. Plants had arrived in a greenhouse in May from Florida. Red Imported Fire Ants were found after putting out baits with SPAM in a 3'x100' area. Ants were found again in October after disturbing the nest. The colony has moved inside the greenhouse and it has been treated with Talstar.

This is the 6<sup>th</sup> time Kansas has intercepted Red Imported Fire Ants.

A new record for Kansas occurred when Pavement Ants have been found. They do sting.

A fire ant survey has been submitted to survey greenhouses in several counties for next year. Two hundred sixty-nine nurseries have products coming from fire ant states.

Jon Appel-State Pathology Specialist: There were 729 soil and root samples taken in 25 counties in central Kansas for the Cereal Crop Nematode survey. Four temporary staff were used, 2 were full-time and 2 were part-time. Weather issues were a problem this year. A dry winter made soil hard and then a blizzard occurred and lowered soil temperatures which slowed root growth. Then rain storms water logged the soil. No exotic nematodes were found.

# Cereal Crop Nematode Survey 2009

## Summary Report

CAPS Committee Meeting

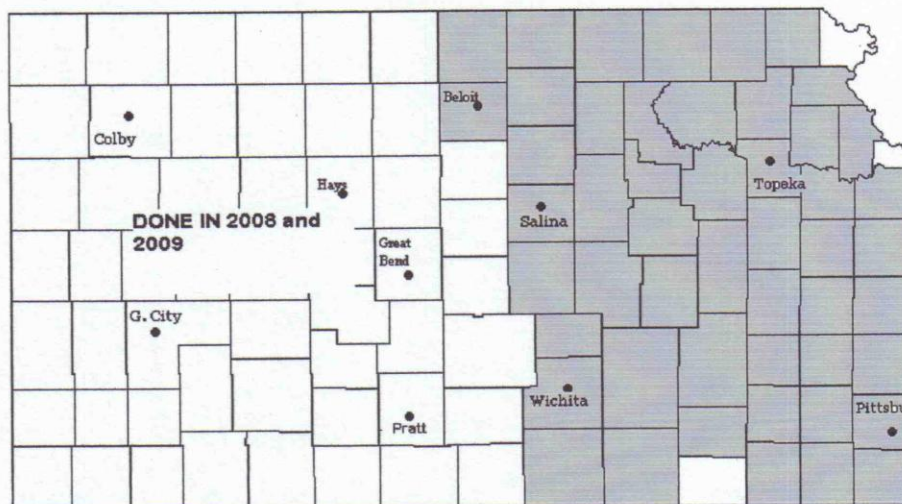
October 8, 2009

We completed the second year of a three-year survey of the state's wheat production acreage. The survey was composed of 729 samples taken in 25 central Kansas counties at a rate of one sample per 4800 production acres. Each sample was composed of soil and root subsamples from about 1 acre. Tim Todd's nematology laboratory at Kansas State University analyzed the soil and root nematode populations from the individual samples.

The 2009 survey used four temporary employees to collect samples. Two of these employees worked full time for about 6 weeks and the two other employees worked part time from regular jobs. Weather was a limiting factor this year in the ability to collect samples. A blizzard that dumped over 28 inches of snow in early April hampered collections in some of the scheduled southern counties. This weather dropped soil temperatures and waterlogged soils delaying the survey. Frequent rains in late April and early May followed the blizzard in the same area producing some flooding. In the northern area of the state, we had the extreme opposite problem with very dry soils that delayed us from sampling. These weather factors collectively forced us into sampling in a much smaller period than we wanted and at times, we overwhelmed the laboratory's ability to process samples.

The survey did not find any of the target exotic nematodes of the Heterodera (cysts) and Meloidogyne (root knot) genera in the samples and believe that this area like western Kansas is free of these pests.

Below is a map of counties that will be sampled in spring of 2010.



**Nematode Prevalence in KS Wheat  
Samples: CAPS Program, 2008\***

Nematode	Prevalence (%)	Avg. density (max) #/100 cm <sup>3</sup> soil
<i>Merlinius brevidens</i>	82	62 (1,440)
<i>Quinisulcius acutus</i>		
<i>Pratylenchus neglectus</i>	73	28 (480)
<i>Paratylenchus projectus</i>	31	126 (3,380)
<i>Heterodera latipons</i>	0	-
<i>H. avenae</i>		
<i>Meloidogyne artiellia</i>	0	-

\*700 samples.

**Nematode Prevalence in KS Wheat  
Samples: CAPS Program, 2009\***

Nematode	Prevalence (%)	Avg. density (max) #/100 cm <sup>3</sup> soil
<i>Merlinius brevidens</i>	89	120 (1,880)
<i>Quinisulcius acutus</i>		
<i>Pratylenchus neglectus</i>	62	88 (1,080)
<i>P. thornei</i>		
<i>Paratylenchus projectus</i>	33	276 (6,520)
<i>Heterodera latipons</i>	0	-
<i>H. avenae</i>		
<i>Meloidogyne artiellia</i>	0	-

\*728 samples.

**Nematode Prevalence in KS Wheat  
Samples: CAPS Program, 2009\***

Nematode	Prevalence (%)	Avg. density (max) #/100 cm <sup>3</sup> soil
<i>Xiphinema</i>	5	10 (60)
<i>Helicotylenchus</i>	2	115 (1,220)
<i>Hemicyclophora</i>	2	228 (760)
<i>Paratrichodorus</i>	2	11 (40)
<i>Criconemella</i>	1	17 (40)

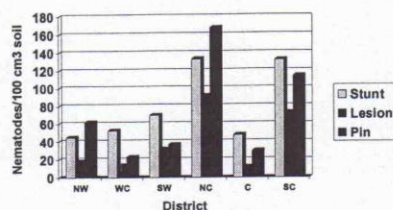
\*728 samples.

***Pratylenchus* Prevalence in KS Wheat  
Root Samples: CAPS Program, 2009\***

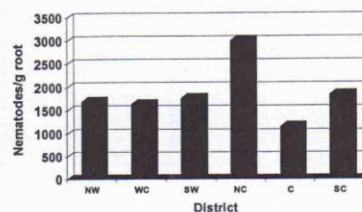
Nematode	Prevalence (%)	Avg. density (max) #/100 cm <sup>3</sup> soil
<i>Pratylenchus neglectus</i>	74	2,274 (90,309)
<i>P. thornei</i>	1	1,701 (4,023)
Total	76	2,263 (90,309)

\*728 samples.

**Nematode Population Density  
by District**



**Lesion Nematode Population  
Density by District**



Tim Todd, KSU Nematologist, spoke about the Cereal Crop Nematode survey: This is the 1<sup>st</sup> time a nematode survey of wheat production has occurred in Kansas. Nematode populations were similar to last year. The environmental conditions were not favorable but densities were higher. *Pratylenchus thornei* has a higher damage potential (1%) compared to *Pratylenchus neglectus*. The central counties had lower densities possibly because of soil type. Yield losses of 1% per 1000 nematodes per gram of dry root weight occur due to this pest. Nematodes ranks in the top third for crop loss.

USDA-APHIS-PPQ: Erin Stiers said that 3 Gypsy moths were found last year and none were found there this year. One Gypsy moth was found this year in a parking lot of Wal-Mart in Overland Park.

No Emerald Ash Borer was found.

Japanese Beetle was found outside of Forbes Field in Topeka. An exclusion survey was done at the airport and none was found so no action was taken at the airport.

The budget may be approved in November.

Craig Webb said his lab has been in place for 5 years and has been mostly used for diagnostic support for emergency programs using real time PCR.

The Karnal Bunt survey was talked about. Cooperation from the elevators has been diminishing every year. We did get a few more elevators sampled this year over last year after letters and calls to the ones which refused us last year. The national program is working on possible solutions to this issue because other states are having the same problems.

#### KSU Specialists Updates:

Doug Jardine: Soybean rust has been found 75 miles from Kansas in Arkansas. Increased survey has occurred along the Kansas border. Kansas soybeans are beyond an economic loss.

There will be no funding for sentinel plots for 2010 for Tier 2 and 3. Mobile scouting may be done. (Tier 1-gulf coast, Oklahoma and Arkansas-endemic for Soybean rust, Tier 2-states where Soybean rust has been reported but arrives late which includes Kansas, Tier 3-states where Soybean rust has never been reported).

This is the 20<sup>th</sup> year for Gray Leaf Spot of corn. It is becoming more prevalent because of increase of no till and replanting corn after corn. Spraying is recommended for more severe outbreaks.

Sudden Death Syndrome of soybeans is worse than it has been this year. There seems to be a correlation with soybean cyst nematode.

Erick DeWolf: He informed of us of an informal wheat virus survey being done.

Also UG99 black stem rust of wheat has been slowed. North America is preparing for cereal rust surveys by tracking counties with rust.

Sharon Dobesh: Wheat survey data sharing protocols will be sent to State Plant Health Directors and State Plant Regulatory Officials from the NPDN.

Larry Biles: Point of contacts for Bark Beetle will be Bob Atchison and for Emerald Ash Borer will be Tim McDonnell.

Possible surveys for 2011: Corn commodity, Barberry, Grape. If there are any other suggestions bring them to the next meeting.

We will be having another meeting in a couple of months to discuss new surveys so look over the list of exotics and come with ideas.

Thanks to all who attended and the information shared.